

REMARKS

The Office Action dated September 22, 2004 has been read and carefully considered and the present amendment submitted to better define the present invention over the references cited in that Office Action.

Initially, claims 14-21 were rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 13-20 of Kean *et al*, U.S. Patent 6,611,133. As such, claims 14-21 have therefore been cancelled with this amendment. Claims 1-13 and 22 were rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-20 of Kean *et al*, U.S. Patent 6,611,133 and a terminal disclaimer is being filed herewith to overcome that rejection.

Claims 14-19, 21 and 22 were rejected under 35 U.S.C. 102(b) as being anticipated by Hossle, U.S. Patent 4,051,007. Claims 1-13, and 20 were rejected under 35 U.S.C. 103(a) as being unpatentable over Hossle, U.S. Patent 4,051,007.

Thus, claims 1 and 22 have been amended to recite that the at least one substantially lateral passageway is at a predetermined location along the length of the core wire and which distinguishes the claim over the Hossle reference where instead of having engineered holes located at predetermined locations, Hossle has a perforated construction. The advantage of the use of predetermined location or locations for the lateral passageway is that the manufacturer can thus place the lateral passageways in certain predetermined locations depending upon the manufacturing design needs of the hot water vessel such as its size, shape, capacity etc. For example, in the Kean *et al* U.S. Patent 6,611,133, those lateral passageways were predetermined such that the indicator was actuated when the core wire was exposed at least six inches from either end. While that parameter is useful in certain applications of the present invention, there are designs of hot water vessels, for example, a vessel having a 2 gallon capacity, one use that the inventors envisage. In such case, the anode itself may not exceed six inches and thus that limitation in the '133 patent would make the invention of the '133 patent inapplicable to such

small hot water heater tanks. Storage capacities can range from 2 to 950 gallons. As now claimed, however, the claim language would be applicable to a hot water vessel having a different design and the engineered, predetermined lateral passageways located within six inches from the ends of the anode.

Accordingly, with the present amendment, claims 1 and 22 have been further amended such that the threshold pressure in each instance is reached “when the predetermined amount of exposure of the core wire is selected from at least the radius of the anode, and at least 50% of the thinnest cross section of the anode.

It can be seen that the claims are limited both to a certain amount of exposure of the core wire but also the overall invention has been limited to an anode rod depletion indicator for installation in a hot water vessel. It is submitted that the use of the present invention is novel in the field of hot water vessels, such as residential hot water heaters, and that there is a long felt need for some means by which a homeowner can verify the remaining life of a particular hot water heater in order to take corrective action. As such, the hot water heater in the home contains hot water under pressure and that pressure is fairly well regulated and is sufficient to operate the present inventive system without the need for external pressure or vacuum systems.

It should be noted in Hossle, in distinguishing the use of the particular invention of Hossle and the Applicant’s environment, that Hossle is intended for systems utilized in oil tanks, typically with outdoor applications, and that the Hossle envisions a 15 year installation. It also should be noted that the Hossle invention is not only intended for that considerable length of time but the environment of the Hossle system is used in an oil tank where the conditions under which the Hossle invention is used are generally constant environmental conditions.

To the contrary, with hot water heaters, the environmental conditions are variable, that is, the temperature of the water may be established at different set points, the amount of water use (gallons per day) will vary widely and the chemistry of the water will range between a wide variety of conditions. All of the above contribute to the corrosion of the tank and subsequent

hazardous water leakage. Thus, with a hot water heater, it is important to provide constant, daily supervision of the hot water heater in order to provide safety for the user as well as protect against a failure of the tank leading to dire consequences to the health and safety of the user. In effect, despite the presence of the Hossle reference and its teaching for use with industrial type oil tanks, Applicant is unaware of any use of a system similar to Applicant's in use or contemplated for a hot water heater despite the long felt need for such a system in a hot water heater as a safety device for the protection of the user and prevention of costly water damage.

Thus, there is an added protection to the user of a hot water system and which is not taught by the use of a system in a oil tank or other industrial type large installation as shown and described in Hossle. The present system can be retrofitted into the millions of hot water heaters currently in use and rely upon the presence of a pressurized hot water supply in order to operate the actuator means to alert the homeowner to the problem in the home, thereby providing a safety measure to the building occupants and the prevention of property damage.

As such, while Hossle is intended for the industrial type tanks, such as oil tanks, and may or may not be used in a tank where there is sufficient internal pressure to operate a signaling system, with the present invention located in a hot water heater, there is always a pressurized supply of water that can enter the lateral and longitudinal passageways to displace the indicator means to indicate the depletion of the anode rod and with that sufficient pressurized water, the threshold pressure is assured of being reached when the exposure of the core wire is at least to the radius of the anode or 50% of the thinnest cross section of the anode. Such exposure automatically allows the water, under sufficient household water pressure, to raise the pressure to the threshold level and be sure of attaining that level with only the exposure of the core wire recited in the claims.

According it is submitted that the newly amended claims distinguish the present invention over the cited references and an allowance of the present application is respectfully solicited.

Respectfully submitted,

A handwritten signature in black ink, reading "Veronica Mallon". The signature is written in a cursive style with a horizontal line underneath.

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